

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/982,272DATE: 01/14/98
TIME: 16:27:27

INPUT SET: S22605.raw

This Raw Listing contains the General
Information Section and up to the first 5 pages.

SEQUENCE LISTING

ENTERED

(1) General Information:

(i) APPLICANTS: Kipps, Thomas J.
Sharma, Sanjai
Cantwell, Mark

(ii) TITLE OF INVENTION: NOVEL EXPRESSION VECTORS
CONTAINING ACCESSORY
MOLECULE LIGAND GENES AND
THEIR USE FOR IMMUNO-
MODULATION AND TREATMENT OF
MALIGNANCIES

(iii) NUMBER OF SEQUENCES: 44

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: Lyon & Lyon
(B) STREET: 633 West Fifth Street
Suite 4700
(C) CITY: Los Angeles
(D) STATE: California
(E) COUNTRY: U.S.A.
(F) ZIP: 90071-2066

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: 3.5" Diskette,
1.44 Mb storage
(B) COMPUTER: IBM Compatible
(C) OPERATING SYSTEM: IBM P.C. DOS 5.0
(D) SOFTWARE: FastSeq Version 2.0

(vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: To Be Assigned
(B) FILING DATE:

467027 " 01/14/98

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RAW SEQUENCE LISTING
PATENT APPLICATION US/08/982,272DATE: 01/14/98
TIME: 16:27:31

INPUT SET: S22605.raw

47 (C) CLASSIFICATION:

48

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50 (vii) PRIOR APPLICATION DATA:

51

52 (A) APPLICATION NUMBER: 60/132145

53 (B) FILING DATE: 12/9/96

54

55

56 (viii) ATTORNEY/AGENT INFORMATION:

57

58 (A) NAME: Guise, Jeffrey W.

59 (B) REGISTRATION NUMBER: 34,613

60 (C) REFERENCE/DOCKET NUMBER: 231/003

61

62

63 (ix) TELECOMMUNICATION INFORMATION:

64

65 (A) TELEPHONE: (213) 489-1600

66 (B) TELEFAX: (213) 955-0440

67 (C) TELEX: 67-3510

68

69

70 (2) INFORMATION FOR SEQ ID NO: 1:

71

72 (i) SEQUENCE CHARACTERISTICS:

73

74 (A) LENGTH: 786 base pairs

75 (B) TYPE: nucleic acid

76 (C) STRANDEDNESS: single

77 (D) TOPOLOGY: linear

78

79 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

80

81 ATGATCGAAA CATAACAACCA AAC'TTCTCCC CGATCTGCGG CCAC'TGGACT GCCCATCAGC 60

82 ATGAAAAATTT TTATGTATTT ACTTACTGTT TTTCTTATCA CCCAGATGAT TGGGTCAGCA 120

83 CTTTTTGCTG TGTATCTTCA TAGAAGGTTG GACAAGATAG AAGATGAAAG GAATCTTCAT 180

84 GAAGATTTTG TATTCATGAA AACGATACAG AGATGCAACA CAGGAGAAAG ATCCTTATCC 240

85 TTA'CTGA'ACT GTGAGGAGAT TAAAAGCCAG TTTGAAGGCT TTGTGAAGGA TATAATGTTA 300

86 AACAAAGAGG AGACGAAGAA AGAAAACAGC TTTGAAATGC AAAAAGGTGA TCAGAATCCT 360

87 CAAAT'TGCGG CACATGTCAT AAGTGAGGCC AGCAGTAAAA CAACATCTGT GTTACAGTGG 420

88 GCTGAAAAAG GATACTACAC CATGAGCAAC AAC'TTGGTAA CCCTGGAAAA TGGGAAACAG 480

89 CTGACCGTTA AAAGACAAGG ACTCTATTAT ATCTATGCCC AAGTCACCTT CTGTTCCAAT 540

90 CGGGAAGCTT CGAGTCAAGC TCCATTTATA GCCAGCCTCT GCCTAAAGTC CCCC'GGTAGA 600

91 TTCGAGAGAA TCTTACTCAG AGCTGCAAAT ACCCAGAGTT CCGCCAAACC TTGCGGGCAA 660

92 CAATCCATTC ACTTGGGAGG AGTATTTGAA TTGCAACCAG GTGCTTCGGT GTTTGTCAAT 720

93 GTGACTGATC CAAGCCAAGT GAGCCATGGC ACTGGCTTCA CGTCCTTTGG CTTACTCAAA 780

94 CTCTGA 786

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98 (2) INFORMATION FOR SEQ ID NO: 2:

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RAW SEQUENCE LISTING
PATENT APPLICATION US/08/982,272DATE: 01/14/98
TIME: 16:27:34

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100 (i) SEQUENCE CHARACTERISTICS:

101
102 (A) LENGTH: 783 base pairs
103 (B) TYPE: nucleic acid
104 (C) STRANDEDNESS: single
105 (D) TOPOLOGY: linear
106

107 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

108
109 ATGATAGAAA CATACAGCCA ACCTTCCCCC AGATCCGTGG CAACTGGACT TCCAGCGAGC 60
110 ATGAAGATTT TTATGTATTT ACTTACTGTT TTCTTATCA CCCAAATGAT TGGATCTGTG 120
111 CTTTTTGCTG TGTATCTTCA TAGAAGATTG GATAAGGTCG AAGAGGAAGT AAACCTTCAT 180
112 GAAGATTTTG TATTCATAAA AAAGCTAAAG AGATGCAACA AAGGAGAAGG ATCTTTATCC 240
113 TTGCTGAACT GTGAGGAGAT GAGAAGGCAA TTTGAAGACC TTGTCAAGGA TATAACGTTA 300
114 AACAAAGAAG AGAAAAAAGA AAACAGCTTT GAAATGCAAA GAGGTGATGA GGATCCTCAA 360
115 ATTGCAGCAC ACGTTGTAAG CGAAGCCAAC AGTAATGCAG CATCCGTTCT ACAGTGGGCC 420
116 AAGAAAGGAT ATTATACCAT GAAAAGCAAC TTGGTAATGC TTGAAAATGG GAAACAGCTG 480
117 ACGGTTAAAA GAGAAGGACT CTATTATGTC TACACTCAAG TCACCTTCTG CTCTAATCGG 540
118 GAGCCTTCGA GTCAACGCCC ATTATCGTC GGCTCTGGC TGAAGCCCAG CATTGGATCT 600
119 GAGAGAATCT TACTCAAGGC GGCAAATACC CACAGTTCCT CCCAGCTTTG CGAGCAGCAG 660
120 TCTGTTCACT TGGGCGGAGT GTTTGAATTA CAAGCTGGTG CTTCTGTGTT TGTCAACGTG 720
121 ACTGAAGCAA GCCAAGTGAT CCACAGAGTT GGCTTCTCAT CTTTTGGCTT ACTCAAACCTC 780
122 TGA 783
123
124
125
126

127 (2) INFORMATION FOR SEQ ID NO: 3:

128 (i) SEQUENCE CHARACTERISTICS:

129
130
131 (A) LENGTH: 783 base pairs
132 (B) TYPE: nucleic acid
133 (C) STRANDEDNESS: single
134 (D) TOPOLOGY: linear
135

136 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

137
138 ATGATCGAAA CATACAACCA AACTTCTCCC CGATCTGCGG CCACTGGACT GCCCATCAGC 60
139 ATGAAAATTT TTATGTATTT ACTTACTGTT TTTCTTATCA CCCAGATGAT TGGGTCAGCA 120
140 CTTTTTGCTG TGTATCTTCA TAGAAGATTG GATAAGGTCG AAGAGGAAGT AAACCTTCAT 180
141 GAAGATTTTG TATTCATAAA AAAGCTAAAG AGATGCAACA AAGGAGAAGG ATCTTTATCC 240
142 TTGCTGAACT GTGAGGAGAT GAGAAGGCAA TTTGAAGACC TTGTCAAGGA TATAACGTTA 300
143 AACAAAGAAG AGAAAAAAGA AAACAGCTTT GAAATGCAAA GAGGTGATGA GGATCCTCAA 360
144 ATTGCAGCAC ACGTTGTAAG CGAAGCCAAC AGTAATGCAG CATCCGTTCT ACAGTGGGCC 420
145 AAGAAAGGAT ATTATACCAT GAAAAGCAAC TTGGTAATGC TTGAAAATGG GAAACAGCTG 480
146 ACGGTTAAAA GAGAAGGACT CTATTATGTC TACACTCAAG TCACCTTCTG CTCTAATCGG 540
147 GAGCCTTCGA GTCAACGCCC ATTATCGTC GGCTCTGGC TGAAGCCCAG CATTGGATCT 600
148 GAGAGAATCT TACTCAAGGC GGCAAATACC CACAGTTCCT CCCAGCTTTG CGAGCAGCAG 660
149 TCTGTTCACT TGGGCGGAGT GTTTGAATTA CAAGCTGGTG CTTCTGTGTT TGTCAACGTG 720
150 ACTGAAGCAA GCCAAGTGAT CCACAGAGTT GGCTTCTCAT CTTTTGGCTT ACTCAAACCTC 780
151 TGA 783
152

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/982,272DATE: 01/14/98
TIME: 16:27:38

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153

154

(2) INFORMATION FOR SEQ ID NO: 4:

156

157

(i) SEQUENCE CHARACTERISTICS:

158

159

(A) LENGTH: 786 base pairs

160

(B) TYPE: nucleic acid

161

(C) STRANDEDNESS: single

162

(D) TOPOLOGY: linear

163

164

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

165

166 ATGATCGAAA CATAACAACCA AACTTCTCCC CGATCTGCGG CCACTGGACT GCCCATCAGC 60

167 ATGAAAATTT TTATGTATTT ACTTACTGTT TTCCTTATCA CCCAAATGAT TGGATCTGTG 120

168 CTTTTTGCTG TGTATCTTCA TAGAAGGTTG GACAAGATAG AAGATGAAAG GAATCTTCAT 180

169 GAAGATTTTG TATTCATGAA AACGATACAG AGATGCAACA CAGGAGAAAG ATCCTTATCC 240

170 TTACTGAACT GTGAGGAGAT TAAAAGCCAG TTTGAAGGCT TTGTGAAGGA TATAATGTTA 300

171 AACAAAGAGG AGACGAAGAA AGAAAACAGC TTTGAAATGC AAAAAGGTGA TCAGAATCCT 360

172 CAAATTGCGG CACATGTCAT AAGTGAGGCC AGCAGTAAAA CAACATCTGT GTTACAGTGG 420

173 GCTGAAAAAG GATACTACAC CATGAGCAAC AACTTGGTAA CCCTGAAAAA TGGGAAACAG 480

174 CTGACCGTTA AAAGACAAGG ACTCTATTAT ATCTATGCCC AAGTCACCTT CTGTTCCAAT 540

175 CGGGAAGCTT CGAGTCAAGC TCCATTTATA GCCAGCCTCT GCCTAAAGTC CCCCAGGTAG 600

176 TTCGAGAGAA TCTTACTCAG AGCTGCAAA ACCCACAGTT CCGCCAAACC TTGCGGGCAA 660

177 CAATCCATTC ACTTGGGAGG AGTATTTGAA TTGCAACCAG GTGCTTCGGT GTTTGTCAAT 720

178 GTGACTGATC CAAGCCAAGT GAGCCATGGC ACTGGCTTCA CGTCCTTTGG CTTACTCAA 780

179 CTCTGA 786

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(2) INFORMATION FOR SEQ ID NO: 5:

183

184

(i) SEQUENCE CHARACTERISTICS:

185

186

187

(A) LENGTH: 783 base pairs

188

(B) TYPE: nucleic acid

189

(C) STRANDEDNESS: single

190

(D) TOPOLOGY: linear

191

192

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

193

194 ATGATCGAAA CATAACAACCA AACTTCTCCC CGATCTGCGG CCACTGGACT GCCCATCAGC 60

195 ATGAAAATTT TTATGTATTT ACTTACTGTT TTCCTTATCA CCCAAATGAT TGGATCTGTG 120

196 CTTTTTGCTG TGTATCTTCA TAGAAGATTG GATAAGGTCG AAGAGGAAGT AAACCTTCAT 180

197 GAAGATTTTG TATTCATAAA AAAGCTAAAG AGATGCAACA AAGGAGAAGG ATCTTTATCC 240

198 TTGCTGAACT GTGAGGAGAT GAGAAGGCAA TTTGAAGACC TTGTCAAGGA TATAACGTTA 300

199 AACAAAGAAG AGAAAAAAGA AAACAGCTTT GAAATGCAAA GAGGTGATGA GGATCCTCAA 360

200 ATTGCAGCAC ACGTTGTAAG CGAAGCCAAC AGTAATGCAG CATCCGTTCT ACAGTGGGCC 420

201 AAGAAAGGAT ATTATACCAT GAAAAGCAAC TTGGTAATGC TTGAAAATGG GAAACAGCTG 480

202 ACGGTTAAAA GAGAAGGACT CTATTATGTC TACACTCAAG TCACCTTCTG CTCTAATCGG 540

203 GAGCCTTCGA GTCAACGCC ATTCATCGTC GGCCTCTGGC TGAAGCCCAG CATTGGATCT 600

204 GAGAGAATCT TACTCAAGGC GGCAATACC CACAGTTCCT CCCAGCTTTG CGAGCAGCAG 660

205 TCTGTTCACT TGGGCGGAGT GTTTGAATTA CAAGCTGGTG CTTCTGTGTT TGTC AACGTG 720

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/982,272DATE: 01/14/98
TIME: 16:27:41

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206 ACTGAAGCAA GCCAAGTGAT CCACAGAGTT GGCTTCTCAT CTTTTGGCTT ACTCAAATC 780
207 TGA 783
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209
210

211 (2) INFORMATION FOR SEQ ID NO: 6:

212

213 (i) SEQUENCE CHARACTERISTICS:

214

215 (A) LENGTH: 786 base pairs

216 (B) TYPE: nucleic acid

217 (C) STRANDEDNESS: single

218 (D) TOPOLOGY: linear

219

220 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

221

222 ATGATAGAAA CATACAGCCA ACCTTCCCCC AGATCCGTGG CAACTGGACT TCCAGCGAGC 60
223 ATGAAGATTT TTATGTATTT ACTTACTGTT TTTCTTATCA CCCAGATGAT TGGGTCAGCA 120
224 CTTTTTGCTG TGTATCTTCA TAGAAGGTTG GACAAGATAG AAGATGAAAG GAATCTTCAT 180
225 GAAGATTTTG TATTCATGAA AACGATACAG AGATGCAACA CAGGAGAAAG ATCCTTATCC 240
226 TTAAGTGAAGT GTGAGGAGAT TAAAAGCCAG TTTGAAGGCT TTGTGAAGGA TATAATGTGA 300
227 AACAAAGAGG AGACGAAGAA AGAAAACAGC TTTGAAATGC AAAAAGGTGA TCAGAATCCT 360
228 CAAATTGCGG CACATGTCAT AAGTGAGGCC AGCAGTAAAA CAACATCTGT GTTACAGTGG 420
229 GCTGAAAAAG GATACTACAC CATGAGCAAC AACTTGGTAA CCCTGGAAAA TGGGAAACAG 480
230 CTGACCGTTA AAAGACAAGG ACTCTATTAT ATCTATGCCC AAGTCACCTT CTGTTCCAAT 540
231 CGGGAAGCTT CGAGTCAAGC TCCATTTATA GCCAGCCTCT GCCTAAAGTC CCCCAGGTAGA 600
232 TTCGAGAGAA TCTTACTCAG AGCTGCAAAT ACCACAGTT CCGCCAAACC TTGCGGGCAA 660
233 CAATCCATTC ACTTGGGAGG AGTATTTGAA TTGCAACCAG GTGCTTCGGT GTTTGTCAAT 720
234 GTGACTGATC CAAGCCAAGT GAGCCATGGC ACTGGCTTCA CGTCCTTTGG CTTACTCAA 780
235 CTCTGA 786
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245 (2) INFORMATION FOR SEQ ID NO: 7:

246

247 (i) SEQUENCE CHARACTERISTICS:

248

249 (A) LENGTH: 786 base pairs

250 (B) TYPE: nucleic acid

251 (C) STRANDEDNESS: single

252 (D) TOPOLOGY: linear

253

254 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

255

256 ATGATAGAAA CATACAGCCA ACCTTCCCCC AGATCCGTGG CAACTGGACT TCCAGCGAGC 60
257 ATGAAGATTT TTATGTATTT ACTTACTGTT TTCCTTATCA CCCAAATGAT TGGATCTGTG 120
258 CTTTTTGCTG TGTATCTTCA TAGAAGGTTG GACAAGATAG AAGATGAAAG GAATCTTCAT 180

PAGE: 1

SEQUENCE VERIFICATION REPORT
PATENT APPLICATION US/08/982,272

DATE: 01/14/98
TIME: 16:27:46

INPUT SET: S22605.raw

Line	Error	Original Text
45	Wrong application Serial Number	(A) APPLICATION NUMBER: To Be Assigned

251021 222800